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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/431,159    11/01/99    BRONICKI

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EXAMINER

VARCOE JR, F

ART UNIT

PAPER NUMBER

1764

DATE MAILED:

02/13/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

09/431,159

Applicant(s)

Bronicki

Examiner

Varcoe

Group Art Unit

1764

☒ Responsive to communication(s) filed on Nov 29, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claim

☒ Claim(s) 1-10 is/are pending in the application

Of the above, claim(s) 4-9 is/are withdrawn from consideration

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-3 and 10 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☒ Claims 1-10 are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 4

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## **DETAILED ACTION**

### ***Election/Restriction***

1. Applicant's election with traverse of Group I, claims 1-3 and 10, in Paper No. 7 is acknowledged. The traversal is on the ground(s) that Examiner has not shown that the apparatus as claimed can be used to practice another materially different process. Furthermore, Applicant asserts that the restriction requirement omits "an appropriate explanation" as to the existence of a "serious burden" if a restriction were not required. This is not found persuasive because, besides heating oil sands as recited by the Examiner, the apparatus could also be used for processing a chemical waste stream from a chemical processing facility. The apparatus performs chemical separation, cracking and hydrogenation, which are applicable in a variety of situations. With regard to the searching burden, the variety of streams that could be processed by the apparatus gives rise to a breadth of search that is considered by the Examiner to be a serious burden..

The requirement is still deemed proper and is therefore made FINAL.

### ***Drawings***

2. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

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***Specification***

3. The spacing of the lines of the specification and claims is such as to make reading and entry of amendments difficult. New application papers with lines double spaced on good quality paper are required.

The disclosure is objected to because of the following informalities: On page 4 line 4 there appear to be multiple typographical errors.

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-3 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

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In claim 1, the omitted structural cooperative relationships are among the heater, the atmospheric fractionating tower, a further heater, a vacuum fractionating tower, an SDA unit, a thermal cracker, and a further thermal cracker.

In claim 3, the omitted structural cooperative relationships are among the apparatus of claim 1 and the hydrotreater, a still further heater, a further atmospheric fractionating tower, an additional heater, a further vacuum fractionating tower.

In claim 10, the omitted structural cooperative relationships are among the apparatus of claim 1 and the hydrotreater, a further heater, a further atmospheric fractionating column, a still further heater, a further vacuum fractionating column

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by van Klinken et al. U.S. Patent No. 4,039,429.

With regard to claim 1, van Klinken discloses a heater for heating the heavy hydrocarbons and an atmospheric fractionating tower for fractionating the heated heavy hydrocarbon feed. Van

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Klinken calls this combination a "First Atmospheric Distilling Zone (Figure 1 (2)). Since a still contains both a heat source and a fractionating tower, van Klinken's description "atmospheric distilling zone" is equivalent to the heater and an atmospheric fractionating tower of the present invention.

Van Klinken discloses a further heater and a vacuum fractionating tower ("First Vacuum Distilling Zone" Figure 1 (3)).

Van Klinken discloses a solvent deasphalting (SDA) unit (Figure 1 (4)).

Van Klinken discloses a thermal cracker (cracker (10) operates at 450° C to 525° C, column 3 line 50, and thus is thermal as well as catalytic).

Van Klinken discloses a thermal cracker (10) for cracking the deasphalted oil.

With regard to claim 2, van Klinken discloses means (21) for supplying only the heavy portion of the light vacuum fractions to the thermal cracker.

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over van Klinken et al. U.S. Patent No. 4,039,429 as applied to claims 1 and 2 above.

With regard to claims 3 and 10, the apparatus of van Klinken includes essentially the same apparatus as the present claim, including a hydrotreater (9), a heater and atmospheric fractionating unit (Figure 1 (11), the distilling zone includes a heater and fractionating tower) but fails expressly to disclose an additional vacuum fractionating apparatus.

Van Klinken discloses an atmospheric fractionating tower (2) followed by a vacuum fractionating tower (3). At the time of the invention it would have been obvious to one skilled in the art to follow the atmospheric fractionating tower (Figure 1 (11)) with a vacuum fractionating tower as was done with the upstream atmospheric fractionating tower (Figure 1 (2)).

The motivation would have been to further separate the process stream into fractions, just as was done upstream by the atmospheric fractionating tower (2) and the vacuum fractionating tower (3).

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***Conclusion***

11. The following prior art made of record but not relied upon is considered pertinent to applicant's disclosure: Van Driesen et al. U.S. Patent No. 4,686,028, van Dongen et al. U.S. Patent No. 4,500,416, and Hood et al. U.S. Patent No. 5,976,361.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rick Varcoe, whose telephone number is (703) 306-5477. The examiner can normally be reached Monday through Friday from 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marian Knode, can be reached on (703) 308-4311.


The FAX telephone number for this Group Art Unit is (703) 305-3599 (for Official papers after Final), (703) 305-5408 (for other Official papers) and (703) 305-6357 (for Unofficial papers).

When filing a FAX in Group 1700, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communications with the PTO that are not for entry into the file of the application. This will expedite processing your papers.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

RV

February 7, 2001

  
MARIAN C. KNODE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700